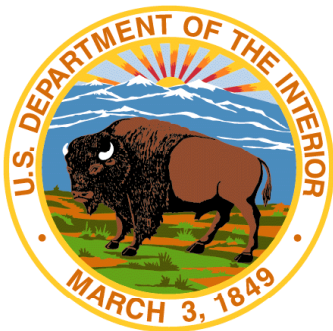


The Electric Trams: Alternative Fuel Vehicles At Zion National Park



National Park Service Expands Alternative Fuels Fleet

If you're among the millions visiting national parks in the U.S. during the next few years, you'll be breathing a little easier because a growing number of vehicles serving the parks will not be powered by gasoline or diesel fuel. The national parks are adding more vehicles using alternative fuels as part of a federal program to reduce vehicle pollution in those treasured environments.

The program is sponsored by the U.S. Department of Energy (DOE), U.S. Department of the Interior (DOI), DOE's National Renewable Energy Laboratory (NREL), and the National Park Service (NPS). The U.S. Department of Transportation (DOT) contributed to purchasing the electric trams. The objective is to demonstrate how using alternative fuel vehicles (AFV) can improve the environment at the parks, while allowing the vehicles to perform efficiently and cost-effectively.

About the Electric Trams

Two of the "cleaner air" vehicles—electric trams—are being used to transport visitors from the south and watchman campgrounds to the shuttle stop at Zion National Park. The vehicles' engines run on electricity instead of gasoline. Because Zion has become increasingly popular with visitors, both local and international, the park is being overwhelmed by cars, RVs, and tour buses. Traffic congestion, lack of parking places, air and noise pollution, and damage to natural resources are frustrating problems. The electric trams are part of the solution.



Two trams like these, powered by electric engines, are used to transport visitors in Zion National Park. Each tram holds up to 36 visitors.



The What & Why of Alternative Fuels

Alternative vehicle fuels include electricity, ethanol, methanol, natural gas, propane, and biodiesel. These fuels are currently powering a variety of commercial, personal, and government vehicles, including heavy-duty long-haul trucks, garbage packers and dump trucks, snow plows, package delivery vans, buses, taxicabs, and passenger cars.

Government agencies and many companies are in partnerships to expand the use of alternative fuels in vehicles. They share the national concern for the environment and recognize the need to reduce the nation's dependence on petroleum from foreign sources. The transportation sector currently accounts for approximately two-thirds of all U.S. petroleum use and roughly one-fourth of the total U.S. energy consumption.

Visit the "clean air" partners

U.S. Department of Energy (DOE), <http://www.doe.gov/>

DOE's Office of Transportation Technologies, <http://www.ott.doe.gov/>

DOE's Alternative Fuels Data Center, <http://www.afdc.doe.gov/>

U.S. Department of the Interior, <http://www.doi.gov/>

National Park Service, <http://www.nps.gov/> or
Zion National Park at <http://www.nps.gov/zion/>

For additional information about the alternative fuel vehicles used at Zion National Park, contact: Dave Karaszewski, 435-772-0143.

For information about alternative fuels, contact Helen Latham at Battelle, 614-424-4062 or lathamh@battelle.org.

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Other AFV Locations

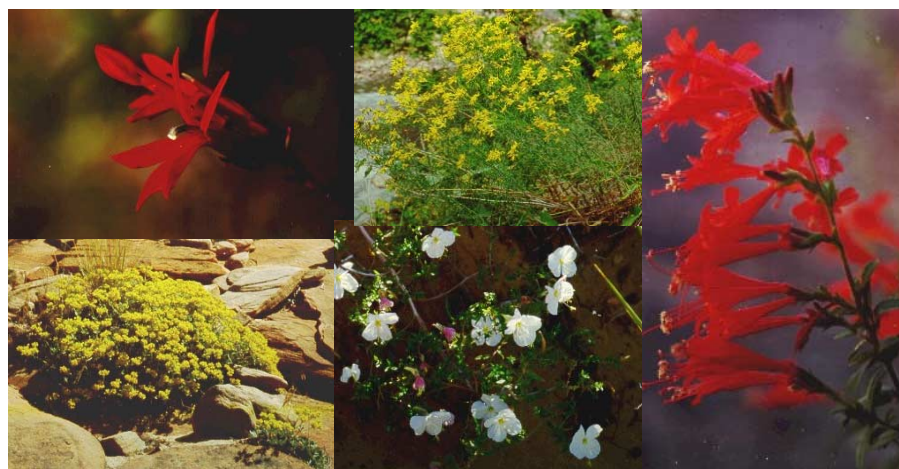
Alternative fuels are now being used in nearly 600 light-duty and transit vehicles in national parks and facilities nationwide. In addition to electricity, the alternative fuels powering these vehicles include compressed natural gas (CNG), ethanol, methanol, propane, and biodiesel. The first alternative fuel vehicle in this program – a CNG-powered trash packer – began service in December 1997 at the National Capital Parks' Central District in Washington, D.C.

Here are examples of other parks and facilities participating in this federal program where you can see a heavy- or medium-sized alternative fuel vehicle at work or have the opportunity to ride in one.

Park/Facility	Location	Fuel	Vehicle Type
Grand Canyon National Park,	AZ	CNG	Dump Truck
Redwood National & State Parks,	CA	Electric	Maintenance Truck
Cumberland Island National Seashore,	GA	Electric	Tram Engine
Bureau of Indian Affairs Schools,	NM	CNG	School Bus
Gateway National Recreation Area,	NY	Electric	Tram Engine
LBJ National Historic Park,	TX	Electric	Bus
George Washington National Parkway		CNG	Maintenance Truck

Before the new or re-powered alternative fuel vehicles can be used, park facilities may need to be modified, such as by installing fuel storage facilities and dispensing equipment. People who refuel, repair, or drive the vehicles may need to be trained in using the new fuels.

Information is collected to judge the performance of the vehicles, cost-effectiveness, and emission reductions.



Autumn Wildflowers in Zion National Park